

Weekly Report (2014.06.09-2014.06.15)

GuoFangzhou

1. Mobile Data

1. Use hive

Last week I implemented 2D Fourier transform and found that the glyphs at the same base look the same at different time. In order to find the reason, I checked the code but I think the code is correct. I want to visualize another day using current method and see whether the result is different or not. The problem is that to access data of other days, I have to use hive. Yuxin Ma told me that I have to write some scripts to generate the data I need and next week I'll deal with the scripts and use current method to visualize another day's data. If results are still the same, there must be something wrong in the current method.

2. The influence of haze in HuZhou

This week we begin to analyze how haze influence the behavior of the citizens. We find that the air quality on Dec. 18 2013 is good and haze appeared on Dec. 20 2013. I extracted data from the origin files and generated binary files. Next week we want to see whether the visualization of the two days' data are different or not.

2. Survey of Traffic Visualization

This week I read through all papers I found and start writing the outline of the survey.

The simplified outline is as follows:

1. The description of traffic visualization

- a. Pipeline of traffic visualization
 - b. Common tasks in traffic visualization
 - Exploring patterns, clusters and rules in data
 - Visualizing and monitoring incident in data
 - Route suggesting
 - Aggregating
- ...

2. Data and pre-process

- a. The attributes and features of data used in traffic visualization
 - b. Pre-processing of data
 - data matching
- ...

3. Visualization method

- a. From the perspective of temporal attribute
- b. From the perspective of spatial attribute
- c. Integration of temporal, spatial and other attribute.

4. Visualization systems

- Introduce different systems divided by tasks.
- Systems explore patterns, clusters and rules in data
- Systems visualize and monitor incident in data
- Systems suggest routes.
- Systems do data aggregations.